(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 31 December 2003 (31.12.2003)

PCT

(10) International Publication Number WO 2004/001454 A1

(51) International Patent Classification⁷: G01R 33/20

G01V 3/14,

(21) International Application Number:

PCT/AU2003/000789

(22) International Filing Date:

24 June 2003 (24.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: PS 3194

24 June 2002 (24.06.2002) AU

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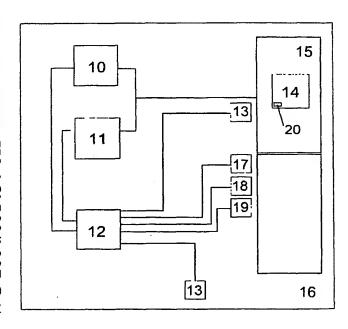
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- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TI, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: IMPROVEMENTS FOR NUCLEAR QUADRUPOLE RESONANCE MEASUREMENTS



(57) Abstract: An apparatus for exciting and detecting NQR in a substance containing quadrupole nuclei responsive to the NQR phenomenon. The apparatus includes a coil 15 for irradiating an item that may contain a substance with RF waves to excite NQR in quadrupole nuclei within the substance and for receiving an NQR signal emitted in response thereto. The apparatus also includes a transmitter unit 10, a receiver unit 11, a sensing means and a computer 12 for processing the treated received signal to identify a said NQR signal therein.